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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of : Kirkley
For : Personalized Security Method for a Self-
Service Checkout System
Serial No. : 10/668,395
Filed : 09/23/2003
Group : 3687
Examiner : An, Ig Tai

Durham, North Carolina
December 7, 2010

MAIL STOP APPEAL BRIEF – PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

Sir:

1. **The Real Party In Interest**

The real party in interest is the assignee, NCR Corporation.

2. **Related Appeals and Interferences**

None.

3. Status of the Claims

This is an appeal from the July 14, 2010 Official Action reopening prosecution in view of the Appeal Brief filed February 4, 2009. The present appeal reinstates the previous appeal. final rejection.

Claims 1-15 are the subject of this appeal.

Claims 1, 2 and 4-14 now stand rejected under 35 U.S.C. § 103(a) as unpatentable over Swartz U.S. Patent No. 5,877,485 (Swartz) in view of Walter et al. U.S. Patent No. 5,992,570 (Walter). Claim 3 now stands rejected under 35 U.S.C. § 103(a) based on Swartz in view of Walter in further view of Zhang et al. U.S. Published Patent Application No. 2003/0177066 (Zhang). Claim 15 now stands rejected under 35 U.S.C. 103(a) based on Swartz in view of Walter in further view of Walter et al. U. S. Patent No. 5,744,784 (Walter B).

4. Status of Amendments

The claims stand as last amended on May 14, 2009. No Amendment After Final has been filed.

5. Summary of Appeal Subject Matter

The appealed claims relate generally to transaction processing systems and methods for use in supermarkets and other retail establishments, and more specifically to approaches to personalized security in the self-service checkout context **implemented and executed by the self-service checkout system.**

As discussed in the Background of the Invention, approaches to self-service checkout have been employed which treat all customers the same and all customers are bound to one set of security rules. Thus, even the most honest customers are subject to rules designed to thwart the most dishonest. Among its several aspects, the present invention recognizes the desirability of

providing an approach to security which considers individual differences in setting the security rules. To such ends, and as addressed in further detail by the claims, the self-service checkout system can be advantageously configured for the security level appropriate for the risk level associated with a particular customer identified as using the system.

Claim 1

Turning to the claims, claim 1 addresses a "security method for a self-service checkout system", such as the method of Fig. 2 utilized in conjunction with the transaction system 12 of Fig. 1 described at page 2, line 15 et seq.

The method comprises the step of "obtaining identification information of a customer involved in a self-service transaction by a self-service computer of a customer operated self-service checkout system" for example, security application 24 obtains customer identification information in step 64 of Fig. 2 as described at page 6, lines 17-29. As further described at page 3, lines 8-11, processor 20 executes security application 24. See, also, page 3, line 22-page 4, line 12, by way of example.

The method of claim 1 also comprises the step of "determining a risk level associated with the identification information of the customer by the self-service computer" as shown in step 66 of Fig. 2, for example, and further described at page 6, lines 17-29 and page 4, lines 13-30, for example. Examples are categorizing one customer as a level three on a scale of one to ten while another is categorized as an eight, as described at page 5, line 15-page 6, line 2.

The method of claim 1 also comprises the step of "determining a security level associated with the risk level by the self-service computer" as shown in step 68 of fig. 2, for example, and further described at page 6, lines 30-32, for example and at page 4, line 31-page 5, line 2, for example.

The method of claim 1 also comprises the step of "configuring the self-service checkout system to complete the self-service transaction by the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level by the self-service computer" as shown in step 70 of Fig. 2, for example, and described at page 7, lines 1-2 and page 5, line 3-page 6, line 2, for example. For the examples noted above, the level three customer can be allowed a wider variance in terms of item identification resulting in fewer times the customer would be stopped for cashier approval. Age restricted items may be approved at the end of the transaction. This customer may also have all credit card transactions under \$100 automatically approved. The level eight customer may have very strict rules applied for item identification as outlined at page 5, line 26-page 6, line 2.

As further examples of "configuring . . . in accordance with security level", page 3, lines 8-11 describe how processor 20 executes security application 24 to control security. For example, security application 24 controls the number and complexity of weight checks using security scales 46. Also, security application 24 may control processing of images captured by camera 44, such as images revealing hand positions and motions during scanning and bagging.

Claim 2

Claim 2 depends from claim 1 and further recites "wherein step a) comprises the step of: a-1) obtaining the identification from a loyalty card carried by the customer" as described at page 3, lines 27-20; and page 6, lines 18-20, for example.

Claim 3

Claim 3 depends from claim 1 and further recites "wherein step a) comprises the steps of: a-1) obtaining biometric data from the customer, and a-2) determining that the identification information of the customer is associated with the biometric data of the customer" as described at page 4, lines 1-5; and page 6, lines 21-24, for example.

Claim 4

Claim 4 depends from claim 1 and further recites "wherein step b) comprises the steps of b-1) storing shopping history data of the customer; and b-2) assigning a risk level based upon the shopping history data of the customer" as described at page 4, lines 13-30, for example.

Claim 5

Claim 5 depends from claim 1 and further recites "wherein step b) comprises the steps of b-a) storing history data of the customer; b-2) obtaining current transaction data of the customer; and b-2) assigning a risk level based upon the shopping history data of the customer and the current transaction data of the customer" as described at page 4, lines 13-30, for example.

Claim 6

Claim 6 depends from claim 1 and further recites "wherein step b) comprises the steps of: b-1) defining categories of shoppers of different risk levels; b-2) storing shopping history data of the customer; and b-3) determining a category of the customer by comparing the shopping history data of the customer to the categories of shoppers; and b-4) determining that the risk level is associated with the category of the customer" as described at page 4, lines 13-30, for example.

Claim 7

Claim 7 depends from claim 1 and further recites "wherein step c) comprises the steps of: c-1) looking up the risk level of the customer in an established list of risk levels; and c-2)

determining that the security level of the customer is associated with the risk level of the customer as described at page 4, line 26-page 5, line 15, for example.

Claim 8

Claim 8 depends from claim 1 and further recites "wherein step d) comprises the step of: d-1) relaxing security for lower security levels" as described at page 5, lines 1-3 and 16-25.

Claim 9

Claim 9 depends from claim 1 and further recites "wherein step d) comprises the step of: d-1) tightening security for higher security levels" as described at page 5, lines 5-7, for example.

Claim 10

Claim 10 depends from claim 1 "further comprising the step of: e) implementing configured security procedures for the security level until the customer leaves the self-service checkout system; and f) storing data from the transaction in the shopper history data of the customer" at described at page 7, lines 4-11, for example.

Claim 11

Claim 11 addresses a "self-service checkout system", such as system 10 shown in Fig. 1 described in detail at page 2, line 14 et seq.

The method comprises "obtaining identification information of a customer involved in a self-service transaction from a loyalty card carried by the customer by a self-service computer of a customer-operated self-service checkout system" described at page 3, lines 22-30, for example.

The method also comprises "a determining a risk level associated with the identification information of the customer (page 5, lines 8-13, for example), including the steps of b-1) defining categories of shoppers of different risk levels (page 4, lines 26-29, for example); b-2) storing shopping history data of the customer; b-3) determining a category of the customer by

comparing the shopping history data of the customer to the categories of shoppers by the self-service computer (page 4, lines 13-20); and b-4) determining that the risk level is associated with the category of the customer by the self-service computer" as described at page 4, line 19-page 5, line 2, for example.

The method also comprises "determining a security level associated with the risk level from a table of risk levels mapped to security levels by the self-service computer" as described at page 4, line 26-page 5, line 2, for example.

The method also comprises "configuring the self-service checkout system to complete the transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level" as described at page 3, lines 1-21 and page 5, lines 23-25, for example.

The method also requires "implementing configured security procedures for the security level by the self-service computer, until the customer leaves the self-service computer" as described at page 3, lines 9-19; page 5, line 15-page 6, line 2; and page 7, lines 7-9, for example.

Claim 12

Claim 12 addresses a "self-service checkout system" such as the system 10 of Fig. 1 as described at page 2, line 16 through page 6, line 9, for example.

The system comprises "a security system, including a self-service computer (12) for obtaining identification information of a customer involved in a self-service transaction at the self-service checkout system (page 3, lines 22-26), for determining a risk level associated with the identification information of the customer, for determining a security level associated with the risk level (page 4, lines 14-25), and for configuring the self-service checkout system to

complete the self-service transaction (page 5, lines 8-15), including identify products scanned by the customer at the self-service computer (page 3, lines 1-5) and accept payment from the customer at the self-service computer, in accordance with the security level" (page 5, lines 23-25 and page 6, lines 1 and 2).

Claim 13

Claim 13 addresses a "self-service checkout system", such as system 10 of Fig. 1 as described at page 2, line 16 through page 6, line 19, for example.

The system comprises "a security system, including a self-service computer (12) for obtaining identification information of a customer involved in a self-service transaction at the self-service checkout system from a loyalty card carried by the customer (page 3, lines 22-26 and page 4, lines 27-30),

for determining a risk level associated with a category of shopping history data most like the shopping history data of the customer, for determining a security level associated with the risk level from a table of risk levels mapped to security levels (page 4, line 26-page 5, line 2),

for configuring the self-service checkout system to complete the self-service transaction, including identify products scanned by the customer at the self-service computer and accept payment from the customer at the self-service computer, in accordance with the security level, and for implementing configured security procedures for the security level until the customer leaves the self-service computer checkout system" as described at page 3, lines 9-19; page 5, line 15-page 6, line 2; and page 7, lines 7-9, for example.

Claim 14

Claim 14 addresses a "security method for a self-service checkout system" such as the method of Fig. 2 utilized in conjunction with the transaction system 12 of Fig. 1 described at

page 2, line 15 et seq.

The method comprises obtaining identification information for a customer involved in a self-service transaction at the self-service checkout system by a self-service computer of the self-service checkout system" as described at page 3, lines 27-30, for example.

The method comprises "determining a risk level associated with the identification information of the customer by the self-service computer" as described at page 6, lines 17-29 and page 4, lines 13-20, for example.

The method comprises "determining a security level associated with the risk level by the self-service computer" as described at page 6, lines 30-32 and page 4, line 31-page 5, line 2, for example.

The method comprises "configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level by the self-service computer" as described at page 7, lines 1-2 and page 5, line 3-page 6, line 2, for example.

The method comprises "interacting with the customer at the self-service computer during the self-service transaction in accordance with the security level by the self-service computer" as described at page 3, lines 11-21 and page 5, line 3-page 6, line 2, for example.

Claim 15

Claim 15 addresses a "security method for a self-service checkout system", such as the method of Fig. 2 utilized in conjunction with the transaction system 12 of Fig. 1 described at page 2, line 15 et seq.

The method comprises "obtaining identification information of a customer involved in a self-service transaction by a self-service computer of a customer-operated self-service checkout system, the customer-operated self-service checkout system including a scale" as described at page 3, lines 8-11; and page 3, line 22-page 4, line 12, for example.

The method comprises "determining a risk level associated with the identification information of the customer" as described at page 6, lines 17-29 and page 4, lines 13-30, for example.

The method comprises "determining a security level associated with the risk level" as described at page 6, lines 30-32 and page 4, line 31-page 5, line 2, for example.

The method comprises "configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer, configuring the self-service computer to perform weight checks of products placed on the scale by the customer at the self-service computer, and to accept payment from the customer at the self-service computer, in accordance with the security level" as described at page 7, lines 1-2 and page 5, line 3-page 6, line 2, for example.

6. Grounds of Rejection to be Reviewed on Appeal

Claims 1, 2 and 4-14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Swartz U.S. Patent No. 5,877,485 (Swartz) in view of Walter et al. U.S. Patent No. 5,992,570 (Walter). Claim 3 was rejected under 35 U.S.C. § 103(a) based on Swartz in view of Walter in further view of Zhang et al. U.S. Published Patent Application No. 2003/0177066 (Zhang). Claim 15 was rejected based on Swartz in view of Walter in further view of Walter et al. U.S. Patent No. 5,747,784 (Walter B).

7. Argument

The final rejection under 35 U.S.C. § 103 did not follow M.P.E.P. § 706.02(j) which states:

After indicating that the rejection is under 35 U.S.C. 103, the Examiner should set forth...the difference or differences in the claim over the applied reference,...the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and ... an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

As will be illustrated below, the claims of the present invention are not obvious in view of the references relied upon by the Examiner.

A. Rejection under 35 U.S.C. § 103(a) over Swartz in view of Walter

This rejection is not supported by the relied upon art. 35 U.S.C. § 103 which governs obviousness indicates that "differences between the subject matter sought to be patented and the prior art" are to be assessed based upon "the subject matter as a whole". Analyzing the entirety of each claim, the rejections under 35 U.S.C. § 103 are not supported by the relied upon art as addressed further below. Only after an analysis of the individual references has been made can it then be considered whether it is appropriate to combine teachings. However, as addressed further below, an objective analysis considers failure of others, the lack of recognition of the problem, and must avoid the improper hindsight reconstruction of the present invention. Such an analysis can appropriately consider whether any modifications are actually suggested by the references rather than assuming they are obvious. The 35 U.S.C. § 103 rejections made here pick and choose elements from either two separate references.

Claims 1, 2 and 4-14

These claims were rejected based on Swartz in view of Walter. As addressed in greater detail below, the rejection of these claims is not supported by these items.

Swartz is entitled "Statistical Sampling Circuitry Methodology for Self-Scanning Checkout System" in which a customer scans items and places them in a cart, and then a cashier or security guard spot checks items to see that they have been scanned by the customer and accepts payment at a POS terminal. Swartz, Title and Abstract; col. 8, lines 37-45. Swartz "methodology determines how many items to check for a given shopper as well as what particular items to check for that shopper." Abstract; see also, col. 2, lines 9-17. The methodology of Swartz is ultimately implemented by the cashier or security guard and as such cannot meet the terms of the present claims which address systems and system implemented methods. Configuring a system is not met by checking items by hand by a human. Walter, which addressing a highly advantageous "Self-Service Checkout Apparatus" assigned to the assignee of the present application does not cure the apparent defects of Swartz with respect to the present claims. Further, while Walter addresses accepting payment, it does not address accepting payment "in accordance with the security level" determined based on the risk level as claimed by claim 1.

With respect to claim 1, the reliance upon Swartz is misplaced. Swartz completely lacks the step of "configuring the self-service checkout system . . ." as claimed. Rather than "configuring the self-service checkout system", Swartz has a human being apply a different level of security by checking a different number of products. Claim 1 is not obvious therefrom.

Regarding claim 2, while the relied upon text of Swartz at col. 4, lines 27-42 addresses scanning a "loyalty card", it does so in the context of dispensing a scanning terminal 100 from the dispenser 2 to a shopper. As a result, this portion of Swartz does not meet the remainder of the claim in which the obtained identification information is used in "determining a risk level associated with the identification information of the customer." At Swartz col. 4, lines 43-46,

Swartz indicates that it is determined if the customer is "allowed to access a terminal 100 (i.e., the shopper is a member of the self-service system)".

Claim 5 addresses "obtaining current transaction data of the customer" and assigning risk in part based thereon. The Official Action relies on Swartz col. 6, lines 45-54 and col. 7, lines 35-55. Neither portion of Swartz meets the claim. Col. 6, lines 45-54 simply state after "determining that the shopper has completed selecting and scanning items for purchase, the host computer" determines which items to check. The bases for determining what items to check do not appear to include any analysis of the items in the current transaction.

With respect to claim 6, again the cited portions of Swartz do not meet the language of this claim.

With respect to claim 7, Swartz does not appear to establish categories of risk levels apparently analyzing situations on a case by case basis. The remaining claims are similarly not met by Swartz.

B. Rejection Under 35 U.S.C. § 103(a) over Swartz in view of Walter and Zhang

This rejection is not supported by the relied upon art. 35 U.S.C. § 103 which governs obviousness indicates that "differences between the subject matter sought to be patented and the prior art" are to be assessed based upon "the subject matter as a whole". Analyzing the entirety of each claim, the rejections under 35 U.S.C. § 103 are not supported by the relied upon art as addressed further below. Only after an analysis of the individual references has been made can it then be considered whether it is appropriate to combine teachings. However, as addressed further below, an objective analysis considers failure of others, the lack of recognition of the problem, and must avoid the improper hindsight reconstruction of the present invention. Such an analysis can appropriately consider whether any modifications are actually suggested by the

references rather than assuming they are obvious. The 35 U.S.C. § 103 rejections made here pick and choose elements from three separate references.

Claim 3

Claim 3 was rejected based on Swartz, Walter and Zhang. Zhang does not cure the failings of Swartz and Walter further addressed at length above.

C. Rejection under 35 U.S.C. § 103(a) over Swartz in view of Walter and in view of Walter B

This rejection is not supported by the relied upon art. 35 U.S.C. § 103 which governs obviousness indicates that "differences between the subject matter sought to be patented and the prior art" are to be assessed based upon "the subject matter as a whole". Analyzing the entirety of each claim, the rejections under 35 U.S.C. § 103 are not supported by the relied upon art as addressed further below. Only after an analysis of the individual references has been made can it then be considered whether it is appropriate to combine teachings. However, as addressed further below, an objective analysis considers failure of others, the lack of recognition of the problem, and must avoid the improper hindsight reconstruction of the present invention. Such an analysis can appropriately consider whether any modifications are actually suggested by the references rather than assuming they are obvious. The 35 U.S.C. § 103 rejections made here pick and choose elements from three separate references.

Claim 15

Claim 15 was rejected based on Swartz, Walter and Walter B. With respect to claim 15, the customer-operated self-service checkout system includes a scale and the configuring includes "configuring the self-service computer to perform weight checks" as addressed at page 3, lines 9-11, for example. The cited portions of Swartz do not meet this claim language.

The Official Action correctly admits "Swartz is silent regarding the self-checkout system accepting payment from the customer at the self-service computer." In this regard, it is noted that step (d) of claim 15 actually reads "configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer . . . to accept payment from the customer at the self-service computer, **in accordance with the security level.** (emphasis added) As discussed at page 5, line 8-page 6, line 2, for example, a customer categorized as a risk level three on a scale of one to ten "may also have all credit card applications under \$100 (a configurable amount) automatically or locally approved" while a customer categorized as risk level eight may require a cashier for signature verification when using credit cards.

While Walter B addressed the use of weight scale 20 for optionally weighing "the contents of the one or more grocery bags 16 which may be placed on the weight scale 20 during a checkout procedure" and that the "weight scale 20 may be used for monitoring the insertion of items into and removal of items from the grocery bags 16 as described further below", it provides no basis for modifying Walter and Swartz in the manner suggested by the Official Action. Reliance upon Walter B appears misplaced as if anything it might correctly be viewed as teaching away from the present invention.

More particularly, column 7, lines 29-40 of Walter B address storage of flagged video for subsequent review by store personnel and then using the information "to prevent the customer from subsequently using the checkout system 10." This approach differs from the system implemented approach claimed by claim 15, and Walter B's use of a security weight scale in this context provides no basis for modifying Swartz and Walter in the manner suggested by the Official Action.

D. The Examiner's Findings of Obviousness are
Also Contrary to Law of the Federal Circuit

As shown above, the invention claimed is not taught and not suggested by the relied upon prior art. The references cited by the Examiner, if anything, teach away from the present invention. It is only in hindsight, after seeing the claimed invention, that the Examiner could combine the references as the Examiner has done. This approach is improper under the law of the Federal Circuit, which has stated that "[w]hen prior art references require selective combination by the Court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 U.S.P.Q. 2d 1434, 1438 (Fed. Cir. 1988), cert. den., 109 S. Ct. 75, 102 L.Ed. 2d 51 (1988); quoting Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1132, 227 U.S.P.Q. 543, 535 (Fed. Cir. 1985). Furthermore, "[i]t is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention." Uniroyal, 837 F.2d at 1051, 5 U.S.P.Q. 2d at 1438.

In addition, the Examiner does not appear to have considered "where the references diverge and teach away from the claimed invention", Akzo N.V. v. International Trade Commission, 808 F.2d 1471, 1481, 1 U.S.P.Q. 2d 1241, 1246 (Fed. Cir. 1986), cert. den., 107 S. Ct. 2490, 482 U.S. 909, 107 S.Ct. 2490 (1987); and W.L. Gore Associates, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983); nor has the Examiner read the claims as a whole, as required by statute. 35 U.S.C. §103. See also, Smithkline Diagnostics Inc. v. Helena Laboratories Corp., 859 F.2d 878, 885, 8 U.S.P.Q. 2d 1468, 1475 (Fed. Cir. 1988); and Interconnect Planning Corp., 774 F.2d at 1143, 227 U.S.P.Q. at 551.

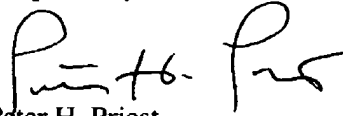
The Examiner's rejection suggests that the Examiner did not consider and appreciate the claims as a whole. The claims disclose a unique combination with many features and advantages

not shown in the art. It appears that the Examiner has oversimplified the claims and then searched the prior art for the constituent parts. Even with the claims as a guide, however, the Examiner did not recreate the claimed invention.

8. Conclusion

The rejection of claims 1-15 should be reversed and the application promptly allowed.

Respectfully submitted,



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CLAIMS APPENDIX
(Claims Under Appeal)

1. A security method for a self-service checkout system comprising the steps of:
 - a) obtaining identification information of a customer involved in a self-service transaction by a self-service computer of a customer-operated self-service checkout system;
 - b) determining a risk level associated with the identification information of the customer by the self-service computer;
 - c) determining a security level associated with the risk level by the self-service computer; and
 - d) configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level by the self-service computer.
2. The method of claim 1, wherein step a) comprises the step of:
 - a-1) obtaining the identification information from a loyalty card carried by the customer.
3. The method of claim 1, wherein step a) comprises the steps of:
 - a-1) obtaining biometric data from the customer; and
 - a-2) determining that the identification information of the customer is associated with the biometric data of the customer.

4. The method of claim 1, wherein step b) comprises the steps of:

- b-1) storing shopping history data of the customer; and
- b-2) assigning a risk level based upon the shopping history data of the customer.

5. The method of claim 1, wherein step b) comprises the steps of:

- b-1) storing shopping history data of the customer;
- b-2) obtaining current transaction data of the customer; and
- b-2) assigning a risk level based upon the shopping history data of the customer and the current transaction data of the customer.

6. The method of claim 1, wherein step b) comprises the steps of:

- b-1) defining categories of shoppers of different risk levels;
- b-2) storing shopping history data of the customer;
- b-3) determining a category of the customer by comparing the shopping history data of the customer to the categories of shoppers; and
- b-4) determining that the risk level is associated with the category of the customer.

7. The method of claim 1, wherein step c) comprises the steps of:

- c-1) looking up the risk level of the customer in an established list of risk levels; and
- c-2) determining that the security level of the customer is associated with the risk level of the customer in the list.

8. The method of claim 1, wherein step d) comprises the step of:

d-1) relaxing security for lower security levels.

9. The method of claim 1, wherein step d) comprises the step of:

d-1) tightening security for higher security levels.

10. The method of claim 1, further comprising the step of:

e) implementing configured security procedures for the security level until the customer leaves the self-service checkout system; and

f) storing data from the transaction in shopper history data of the customer.

11. A security method for a self-service checkout system comprising the steps of:

a) obtaining identification information of a customer involved in a self-service transaction from a loyalty card carried by the customer by a self-service computer of a customer-operated self-service checkout system;

b) determining a risk level associated with the identification information of the customer, including the steps of

b-1) defining categories of shoppers of different risk levels;

b-2) storing shopping history data of the customer;

b-3) determining a category of the customer by comparing the shopping history data of the customer to the categories of shoppers by the self-service computer; and

b-4) determining that the risk level is associated with the category of the customer by the self-service computer;

c) determining a security level associated with the risk level from a table of risk

levels mapped to security levels by the self-service computer;

- d) configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level by the self-service computer; and
- e) implementing configured security procedures for the security level by the self-service computer until the customer leaves the self-service checkout system computer by the self-service computer.

12. A self-service checkout system comprising:

a security system, including a self-service computer for obtaining identification information of a customer involved in a self-service transaction at the self-service checkout system, for determining a risk level associated with the identification information of the customer, for determining a security level associated with the risk level, and for configuring the self-service checkout system to complete the self-service transaction, including identify products scanned by the customer at the self-service computer and accept payment from the customer at the self-service computer, in accordance with the security level.

13. A self-service checkout system comprising:

a security system, including a self-service computer for obtaining identification information of a customer involved in a self-service transaction at the self-service checkout system from a loyalty card carried by the customer, for determining a risk level associated with a

category of shopping history data most like the shopping history data of the customer, for determining a security level associated with the risk level from a table of risk levels mapped to security levels, for configuring the self-service checkout system to complete the self-service transaction, including identify products scanned by the customer at the self-service computer and accept payment from the customer at the self-service computer, in accordance with the security level, and for implementing configured security procedures for the security level until the customer leaves the self-service computer checkout system.

14. A security method for a self-service checkout system comprising the steps of:
 - a) obtaining identification information for a customer involved in a self-service transaction at the self-service checkout system by a self-service computer of the self-service checkout system;
 - b) determining a risk level associated with the identification information of the customer by the self-service computer;
 - c) determining a security level associated with the risk level by the self-service computer;
 - d) configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer and to accept payment from the customer at the self-service computer, in accordance with the security level by the self-service computer; and
 - e) interacting with the customer at the self-service computer during the self-service transaction in accordance with the security level by the self-service computer.

15. A security method for a self-service checkout system comprising the steps of:
- a) obtaining identification information of a customer involved in a self-service transaction by a self-service computer of a customer-operated self-service checkout system, the customer-operated self-service checkout system including a scale;
 - b) determining a risk level associated with the identification information of the customer;
 - c) determining a security level associated with the risk level; and
 - d) configuring the self-service checkout system to complete the self-service transaction by the self-service computer, including configuring the self-service computer to identify products scanned by the customer at the self-service computer, configuring the self-service computer to perform weight checks of products placed on the scale by the customer at the self-service computer, and to accept payment from the customer at the self-service computer, in accordance with the security level.

EVIDENCE APPENDIX

None.

None.

RELATED PROCEEDINGS APPENDIX